

# 15206

## Impact melt Breccia

92 grams



Figure 1: Photo of 15206. S71-43190



Figure 2: Photo of 15206. S71-43195 Cube is 1 inch.

### Introduction

Lunar sample 15206 was broken off the same boulder as 15205 and apparently has the same chemical composition. However, it has a different texture (Wilshire and Moore 1974, Dymek et al. 1974). It has not been dated.

### Petrography

The best description of 15206 is found in Ryder (1985). It is a vesicular glassy breccia containing KREEP basalt and mare basalt clasts. Unlike 15205 the clasts are shocked and penetrated by glass and there is a higher proportion of matrix (figure 3). It is an impact melt rock, that was probably generated from a regolith.

### Chemistry

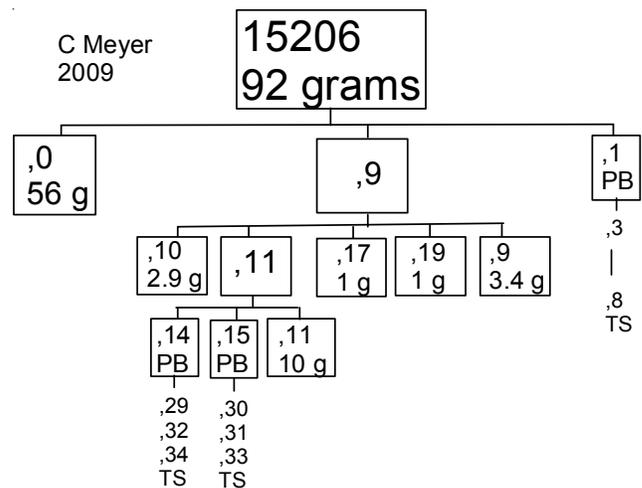
The K, Th and U was determined by radiation counting and found to be similar to that of 15205. Judging from the high Th content both samples must be made up mostly KREEP basalt. Halogens were determined by Reed and Jovanovic (1972).

### Cosmogenic isotopes and exposure ages

Keith et al. (1972) and Rancitelli et al. (1972) determined the cosmic-ray-induced activity of <sup>26</sup>Al, <sup>22</sup>Na, <sup>46</sup>Sc, <sup>48</sup>V, <sup>54</sup>Mn, <sup>56</sup>Co and <sup>60</sup>Co.

### Processing

An elongate piece (.9) was cut off and subdivided.. There are 12 thin sections.





*Figure 3: Photo of 15206 showing internal texture with vesicles. Sample is 6 cm across. S74-33198 (badly faded)*

**Table 1. Chemical composition of 15206.**

reference weight	Keith72	Rancitelli72 86 g	Reed72
SiO2 %			
TiO2			
Al2O3			
FeO			
MnO			
MgO			
CaO			
Na2O			
K2O	0.59	0.6	(a)
P2O5			
S %			
sum			
Sc ppm			
V			
Cr			
Co			
Ni			
Cu			
Zn			
Ga			
Ge ppb			
As			
Se			
Rb			
Sr			
Y			
Zr			
Nb			
Mo			
Ru			
Rh			
Pd ppb			
Ag ppb			
Cd ppb			
In ppb			
Sn ppb			
Sb ppb			
Te ppb			
Cs ppm			
Ba			
La			
Ce			
Pr			
Nd			
Sm			
Eu			
Gd			
Tb			
Dy			
Ho			
Er			
Tm			
Yb			
Lu			
Hf			
Ta			
W ppb			
Re ppb			
Os ppb			
Ir ppb			
Pt ppb			
Au ppb			
Th ppm	12	12.4	
U ppm	3.2	3.22	4.9

technique: (a) radiation counting

**References for 15206**

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